UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J. F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203

January 30, 1986

NAME: CyTec Ind
I.D. NO.: CTD 001173467
FILE LOC: R-8
OTHER: Withheld Documents

Mr. Edward Parker, Assistant Director
Hazardous Materials Management Unit
Dept. of Environmental Protection
State Office Bldg./165 Capitol Ave.
Hartford, CT 06106

Re: Preliminary Assessment for
American Cyanamid Company, CTD001173467

Dear Mr. Parker:

Enclosed for your review is the Preliminary Assessment (PA) for American Cyanamid Co. This document represents an assemblage of all available information regarding Solid Waste Management Units, including past releases of hazardous waste or constituents, at the facility. The PA is accompanied by a Decision Document (DD) with recommendations based on the information in the PA.

Due to the importance of this document in directing our efforts, we ask that you provide your comments by February 18, 1986. If you have no concerns regarding the contents or conclusions of this document, please concur on Page 2 of the DD and return it (an original) to me. The PA and DD copies may be retained for your records. If we receive no response by February 18, 1986 we will assume that you have no comments that would alter our strategy for this facility.

Please call Michael O'Brien, of my staff, at (617) 223-1909 if you have any questions.

Sincerely,

Dick Boynton

Richard Boynton, Chief
CT/RI Waste Programs Section

cc: Marina Crawford

Enclosure

returned by DEP thru Gerry S. 86/3/4/1:30

RECEIVED
FEB 6 1986
HAZARDOUS MATERIALS
MANAGEMENT UNIT

first original 86/1/13

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

DATE: January 13, 1986

SUBJ: Preliminary Assessment of American Cyanamid Co.

TO: Richard C. Boynton, Chief
CT/RI Waste Programs Section

FROM: Michael J. O'Brien, Environmental Engineer
CT/RI Waste Programs Section

I. GENERAL INFORMATION

° Facility Name: American Cyanamid Co.

Address: South Cherry St.
Wallingford, CT 06492

Telephone: (203) 284-4263

EPA ID No.: CTD001173467

° Facility RCRA Contact:

Name: Andrew Eross

Title: Environmental Services Manager

° Facility Description

This plant of American Cyanamid Co.is situated in south central Connecticut on the east bank of the Quinnipiac River (See Attachment 1). The virgin ground was broken for this facility in 1939 and it began operations on December 8, 1941.

This plant of the Polymer Products Division primarily manufactures thermoset molding compounds (melamine/formaldehyde and urea/formaldehyde); thermoplastic molding compounds (acrylic polymers); liquid and spray-dried resins and water purification flocculants.

II. REGULATORY INFORMATION

° Most Recent RCRA Inspection: September 26-29, 1985

by Messrs. Peter Zach and Arnold (Buzz) Devine
Enforcement Group, Hazardous Waste Management Section, Connecticut Department of Environmental Protection (DEP)

Results: There were some RCRA violations aside from the contested conditions at the largest, historic landfill. These violations were:

1) An incomplete waste analysis plan; namely, lack of sampling and testing of waste input to the wastewater treatment plant grit chamber and of sludge from that chamber collected in rolloff bins.

2) Lack of a log for insepctions of the grit chamber rolloff bins.

3) Lack of a post-closure plan.

° Permit Process Status:

The state/RCRA permit for management of container and underground tank hazardous waste storage units has been stalled since March, 1984, due to the state's enforcement against the company regarding hazardous waste disposal at the historic landfill (documented by inspection February 29, 1984). This landfill was not included in the Part B permit application on April 21, 1983 because American Cyanamid submitted a revised Part A application on November 19, 1982 deleting the landfill, based on an explanation that it was not receiving hazardous wastes. Litigation of a state order for waste removal from the landfill is still underway and the completion and issuance of a hazardous waste permit is still in abeyance.

° EPA/State Enforcement Activities:

81/07/28 The DEP issued an order to American Cyanamid to abate pollution. The company was ordered "to take such action as is necessary to:

1) Investigate the extent of groundwater and surface water contamination caused by the deposition of industrial waste and sludges at the Wallingford plant site."

84/04/04 The DEP issued a Cease and Desist Order to the company. The order included a schedule for planning and accomplishing the excavation, repackaging, removal and disposal of identified hazardous wastes at the historic landfill.

° Events Requiring Implementation of Facility's Contingency Plan:

Incident I: Leak of acrylonitrile from a buried transfer line. The quantity of material which escaped into the ground was approximately 30,000 gallons. The sequence of reaction to this release since the discovery on March 1, 1983 was as follows:

1983/March 21-28:	Initial monitoring wells installed
April 21-26:	Additional monitoring wells installed
June 14-16:	Additional monitoring wells installed
July 8:	Initial recovery well installed
July 26-27:	Additional monitoring wells installed off-site
August 15:	Recovery well PW1 started pumping
November 4-5:	Additional monitoring wells installed off-site
December 21:	Additional monitoring wells installed off-site
1984/March 26:	Two new recovery wells drilled off-site following delays in securing right-away permit from AMTRAK.
September 14:	Recovery wells PW2 and PW3 running

The recovery wells operate 24 hours/day seven days a week and they are sampled quarterly. As of late July, 1985 recovery of acrylonitrile was considered 86% completed.

Incident 2: Leak of methanol distillate from a buried transfer line. The leak, estimated at 100 lbs., was detected and stopped on October 2, 1984. The following actions were then accomplished.

1984/10/18, 19 & 23

Four observation wells were installed in the vicinity of the leak. Soil samples were collected at 5 to 10 foot intervals and screened immediately for volatile organic compounds with an AID Model 580 organic vapor meter. Samples were placed in screw-capped glass jars and screened later with a Perkin-Elmer gas chromatograph for quantification of methanol. Groundwater samples were also collected from the wells and screened by the GC. Groundwater elevations were surveyed on October 19th to determine direction of groundwater flow.

III. HAZARDOUS WASTE PROFILE

Waste	Generation	Process
Process wastes (including off-grade products) (D001)	312.5 tons/year	Storage in containers
Spent equipment-cleaning solutions (F002)	30,000 lb./year	Storage in containers
Still bottoms from the distillation of spent toluene solvent (F005)	400 tons/year	Storage in an underground tank

IV. SOLID WASTE MANAGEMENT UNITS(SWMU's)

The following SWMU's were described in the facility's response to EPA's §3007 Information-Request Letter (See Attachment 2 for SWMU locations):

A. Container Storage Area

Description: Dimensions: 50 ft. x 25 ft.

Active Period: July 1982 to April 4, 1983

Waste Type Stored: Process wastes from the production of resins, thermoplastics and thermosetting plastics.

Maximum Waste Quantity Stored: 100-55G drums.

B. Container Storage Area

Description: A concrete pad 40 ft. x 29 ft., with 4 in. high concrete curb. This unit is detailed in the company's Part B application (Section D).

Active Period: July 1982 to the present

Waste type stored: Process wastes from the production of resins, thermoplastics and thermosetting plastics and off-grade products, resins and thermoplastics.

Maximum Waste Qantity Stored: 250-55G drums.

C. Container Storage Area

Description: A concrete pad 15 ft. square, with a curb and a roof.

Active Period: July 1982 to present.

Waste Type Stored: Waste oils from plant equipment lubrication and engine crankcases.

Maximum Waste Quantity Stored: 15-55G drums.

D. Bulk Shipment Staging Area

Description: 30 cu. yd. containers outside Building No. 9 warehouse.

Active Period: July 1982 to the present.

Waste Type Staged: Process wastes from the production of resins, thermoplastics and thermosetting plastics.

Maximum Waste Quantity Collected: 5-55G drums

E. Drum Staging Area in Building No. 6

Description: A concrete floor approximately 80 ft. x 20 ft. inside a product warehouse.

Active Period: July 1982 to the present

Waste Type Staged: Resin production wastes and off-grade resin product.

Maximum Waste Quantity Collected: 25-55G drums.

F. Drum Staging Area in Building No. 10

Description: A concrete floor approximately 80 ft. x 30 ft. inside a product warehouse.

Active Period: July 1982 to the present

Waste Type Staged: Thermoplastics production wastes and off-grade thermoplastic product.

Maximum Waste Quantity Collected: 25-55G drums.

G. Underground Storage Tank

Description: Horizontal, cylindrical, carbon steel underground storage tank, 12 ft. outside diameter, 36 1/2 ft. long, 1/4 in. sheet thickness; 30,000 G capacity. This unit is detailed in the company's Part B application (Section D).

Active Period: 1954 to the present

Waste Type Stored: Still bottoms from the recovery of spent solvent toluene.

Quantity of Waste Cycled Through Unit: 473 tons/year

H. Underground Storage Tank

Description: A vertical, cylindrical, reinforced-concrete, lined storage tank, 57 ft. 4 in. outside diameter, 12 ft. high, 8 in. shell thickness; 200,000 G capacity.

Active Period: 1951 to the present

Waste Type Stored: Still bottoms from recovery of methanol.

Quantity of Waste Cycled Through Unit: 484,000 Gal/year.

J.* Landfill

Description: Dimensions: 425 ft. by 375 ft.

Active Period: 1955 to April 4, 1984.

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* Unit I, a methanol distillate storage tank, is not a SWMU.

Major Types and Annual Quantities of Waste Disposed of in This Unit:

Wastes From Wastewater Treatment Plant:

Grit chamber sludge	1280	tons
Treatment plant sludges	55	"
Incinerator ash	18	"

Resin Department Wastes:

Filter cakes	248	tons
Spray dryer solids	83	"
Bldg. 6 laboratory solid waste	50	"
Plant sump sludges	50	"

Thermoplastics Department Wastes:

Latex coagulum	33	tons
Floor sweepings	30	"
Thermosetting process solids	150	"

K. Powder Dump

Description: A landfill 250 ft. by 225 ft.

Active Period: 1948 to 1965

Types of Waste Disposed of in This Unit:

Thermosetting materials in the form of powders
Flashing from laboratory moldings
Off-grade material
Construction debris

Quantity of Waste Disposed of in This Unit:
Unknown

L. Building No. 6 Sediment Pit

Description: Concrete catch basin, 20 ft. 2 in. by 9 ft. 9 in. by 8 ft. 2 1/2 in., to collect sediment.

Active Period: November 1979 to the present.

Type of Waste Collected by This Unit: Wastewater from the production of resins.

Quantity of Wastes Cycled Through This Unit:

9,300,000 gal/year.

M. Building No. 6B Sediment Pit

Description: Concrete catch basin, 15 ft. 3 in. by 4 ft. by 6 ft. 3 in., to collect sediment.

Active Period: June 1975 to the present.

Type of Waste Collected by This Unit: Wastewater from the production of resins.

Quantity of Wastes Cycled Throught This Unit:

176,000,000 gal/year.

N. Building No. 6 Spray-Dryer Scrubber Sediment Pit

Description: Concrete catch basins, 16 ft. by 9 ft. 9 in. by 8 ft. 2 in., to collect sediment.

Active Period: November 1979 to the present.

Type of Waste Processed by This Unit: Wastewater from the production of dry resins.

Quantity of Waste Passing Through This Unit:

182,400,000 gal/year

O. Building No. 5B Sediment Pit

Description: Concrete catch basin, 21 ft. by 6 ft. 8 in. by 6 ft. 9-3/4 in., to collect sediment.

Active Period: July 1968 to the present.

Type of Waste Handled by This Unit: Wastewater from the production of resins.

Quantity of Waste Cycled Through This Unit:

95,700,000 gal/year.

P. Grit Chamber

Description: A concrete sump, 20 ft. by 20 ft. by 3 ft. (with 10 in. wall thickness) at the head of the wastewater treatment plant.

Active Period: November 1973 to the present.

Type of Waste Handled: Biological and industrial process wastewaters.

Quantity of Wastewater Flowing Through Unit:

2,500,000 gal/day

Q. Equalization Basin

Description: A concrete basin, 190 ft. by 190 ft. by 12 ft., part of the wastewater treatment plant.

Active Period: November 1973 to the present

Type of Waste Handled: Biological and industrial process wastewaters.

Quantity of Wastewater Flowing Through Unit:

2,500,000 gal/year

R. Aeration Basin

Description: A concrete basin, 318 ft. by 138 ft. by 12 ft., having a capacity of 3,200,000 gallons, part of the wastewater treatment plant.

Active Period: November 1973 to the present

Type of Waste Aerated: Biological and industrial process wastewaters.

Quantity of Wastewater Aerated: 2,500,000 gal/day

S. Clarifiers

Description: Two concrete basins, each 70 ft. in diameter and 12 feet deep and having a capacity of 750,000 gallons, part of wastewater treatment plant.

Active Period: November 1973 to the present

Type of Waste Clarified: Aerator effluent

Quantity of Wastewater Clarified: 2,500,000 gal/day

T. Sludge Thickener

Description: A concrete tank, 45 ft. in diameter and 12 ft. deep, with sludge thickening apparatus, part of the wastewater treatment plant.

Active: November 1973 to the present.

Type of Waste Thickened: Activated sludge from the wastewater treatment process.

Quantity of Waste Thickened: 18,900 tons/year.

U. Incinerator

Description: A multi-hearth incinerator with hearths 13 ft. 6 in. in diameter and 6 in. deep, part of the wastewater treatment plant.

Active Period: November 1973 to the present.

Type of Waste Incinerated: Secondary sludge from the wastewater treatment plant.

Quantity of Waste Incinerated: 18,900 tons/year (wet), 18 tons/year (dry).

V. Ash Lagoon

Description: Lagoon, 150 ft. by 150 ft. by 4 ft.

Active Period: November 1973 - October 1982.

Type of Waste Disposed of in This Unit: Ash from sludge incinerator.

Quantity of Waste Disposed of in This Unit:

18 tons/year.

W. Pilot Compost Study

Description: Experimental waste pile, approximately 70 ft. by 24 ft. by 6 in. (deep).

Active Period: October 20 to December 1980.

Type of Waste Composted: Secondary, biological sludge from the wastewater treatment plant.

Quantity of Waste Composted: 8 tons

X. Leak from a Chemical Transfer Line

Description: A release from an underground transfer line from a storage tank to a process unit.

Material Releases: Acrylonitrile

Date Detected and Terminated: March 1, 1983.

Quantity of Material Released: Approximately 30,000 gallons.

Reference Section II., Events Requiring Implementation of Facility's Contingency Plan, Incident 1, for company response and current status.

Y. Release From a Chemical Transfer Line

Description: A leak from a buried pipe for transfer of material from 15,000 G storage tank to process unit.

Date Detected and Terminated: October 2, 1984.

Material Released: Methanol distillate.

Quantity of Material Released: Approximately 100 lb.

Reference Section II., Events Requiring Implementation of Facility's Contingency Plan, Incident 2, for company reaction.

Z. Building No. 1 Staging Area

Description: A concrete floor area, approximately 40 ft. by 40 ft. inside a product warehouse.

Active Period: July 1982 to the present.

Type of Waste Collected: Process wastes from the production of thermosets (plastic).

Maximum Quantity of Wastes Collected in This Area: Approximately 20-55 G drums.

V. RELEASES TO THE ENVIRONMENT

Two leaks of process materials have occurred at this facility and there has been at least one community complaint about odors in the vicinity of this plant. The two leaks were from underground pipes for conducting chemicals from storage tanks to production units. A leak in the acrylonitrile transfer line was discovered on March 1, 1983 and the amount which escaped into the ground was estimated at 30,000 gallons. The

other leak, in the methanol distillate transfer line was found on October 2, 1984 and the loss of material was estimated to have been only 100 pounds. Both leaks were stopped immediately after their discovery. The company's response to these incidents is described in Section II above, under "Events Requiring Implementation of Facility's Contingency Plan."

A complaint about odors in the vicinity of this facility was called to the Connecticut Department of Environmental Protection by an anonymous person on June 1, 1984. The complainant indicated that the odor was prevalent all day, and that it was evident on Colony Street (U.S. Route 5), which runs along the east side of the plant.

IV. SOURCES OF INFORMATION

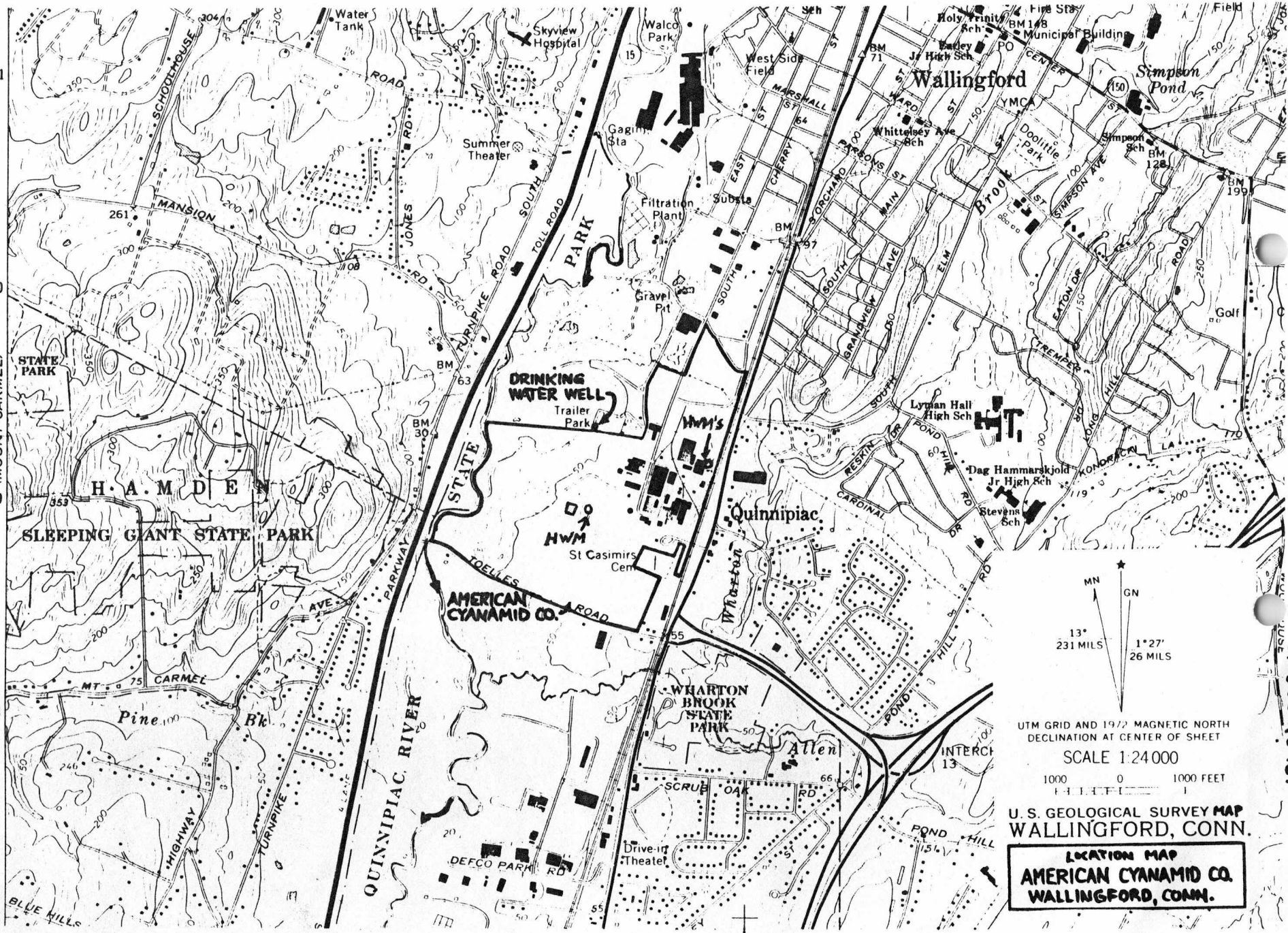
1. EPA RCRA File

2. CT DEP Files:

   A. Facility (RCRA) File
   B. Enforcement (Non-confidential) File

3. Response to §3007 Information Request Letter on solid waste management units.

4. Map: U.S. G.S. Wallingford, CT Topographic Quadrangle AMS 6466 IV NE Series V816; Scale: 1:24,000; Contour Interval: 10 ft.; photorevised 1972.

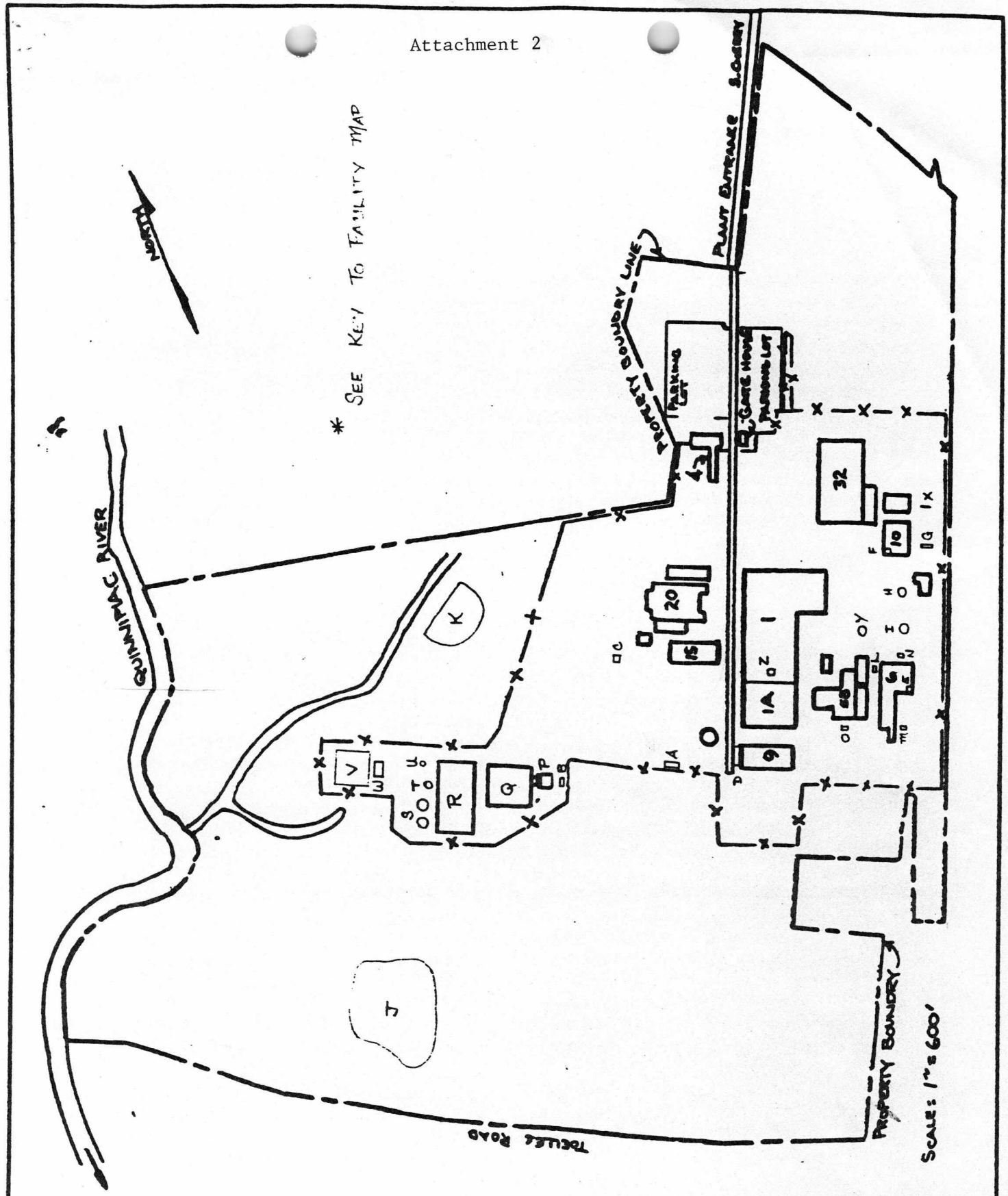


Attachment 1

CT D001173467

ORIGINALLY SUBMITTED : 5 NOV. 1980

Attachment 2



REVISIONS			APPROVALS	DWN. BY Bob C. DATE 13 JAN 83 CH'KED BY DATE ENG. SCALE	AMERICAN CYANAMID COMPANY WALLINGFORD, CONNECTICUT	
	DATE	APP.			FACILITY MAP	SK-Y-A-516
A						
B						
C						
D						
E						

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

January 30, 1986

Mr. Edward Parker, Assistant Director
Hazardous Materials Management Unit
Dept. of Environmental Protection
State Office Bldg./165 Capitol Ave.
Hartford, CT 06106

Re: Preliminary Assessment for
American Cyanamid Company, CTD001173467

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Sincerely,

Richard Boynton, Chief
CT/RI Waste Programs Section

cc: Marina Crawford

Enclosure

CONCURRENCES								
SYMBOL	HSC	HSC						
SURNAME	O'Brien	Boynton						
DATE	1/30/86	1/31/86						

EPA Form 1320-1 (12-70)

OFFICIAL FILE COPY

GPO : 1983 O - 403-201